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Barrier-free safety for renovation and new building

Magnetic zero threshold regarding Universal Design

One idea – many benefits:

Comfort und quality of living for all generations
made possible by zero threshold MFAT und MFZ.

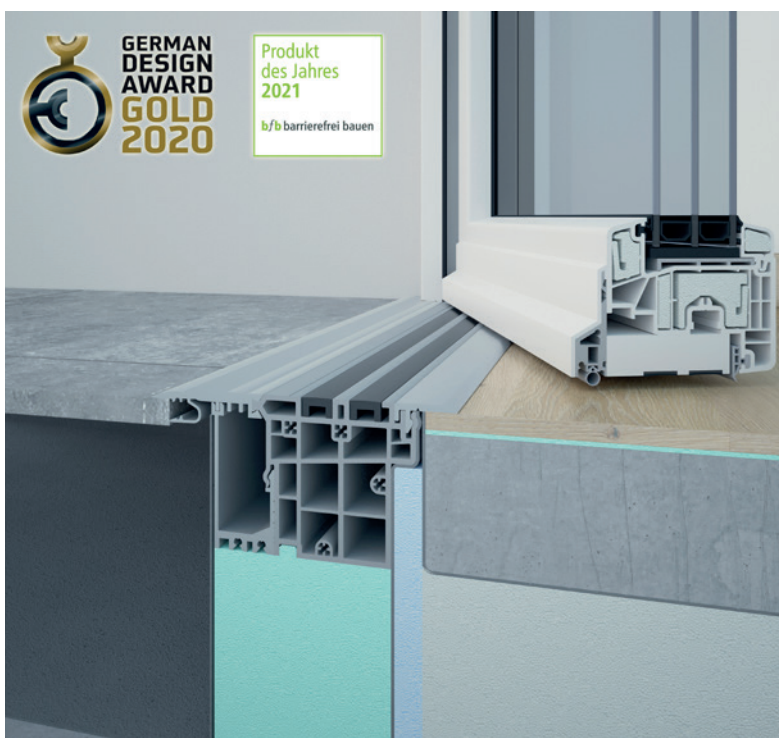
June 2022 · Subject to technical changes



World's first zero threshold with passive house certification.

QUALITY OF LIFE FOR OLD AND YOUNG

In 1996, ALUMAT was the world's first manufacturer of a driving rain-proof zero threshold for exterior doors. Today, ALUMAT is the world's first manufacturer of a passive house certified zero threshold. With a **striking development lead** of more than 20 years, it was possible to achieve this technical world leadership, which is still unique today.



The barrier-free and universally designed magnetic zero threshold from ALUMAT has mastered the passive house efficiency class pH_C. With this certified passive house component, this innovation provides the necessary comfort with an hc-value (built in) of maximum 0.85 W/(m²K) with an Ug-value of 0.70 W/(m²K). The obtained hygienic value fR_{Si}, the temperature factor, is proven to be at least 0.70.

„The achieved values of ALUMAT are the proof that the product is very good and avoids condensation – and this with a zero threshold!“, explains the managing director Prof. Dr.-Ing. Benjamin Krick from the Passive House Institute in Darmstadt.

PASSIVE HOUSE CERTIFICATION

With the achievement of passive house certification, **the very last outstanding technical performance characteristic** has been mastered. The magnetic zero threshold thus now improves thermal insulation in all buildings, regardless of whether they are standard, low-energy or passive houses. In addition, the passive house certification ensures that water-sensitive floors can be laid directly against the magnetic zero threshold



Anyone can use magnetic zero thresholds, but not 1 – 2 cm high door sills.

Transitions without corners and edges are the ergonomically better solution for everyone.



The magnetic zero threshold provides cross-generational fall-preventive and safe transitions between inside and outside.



Children are also pleased with the magnetic zero threshold without hazardous doorsteps.

ADVANTAGES FOR NEW CONSTRUCTION AT A GLANCE:

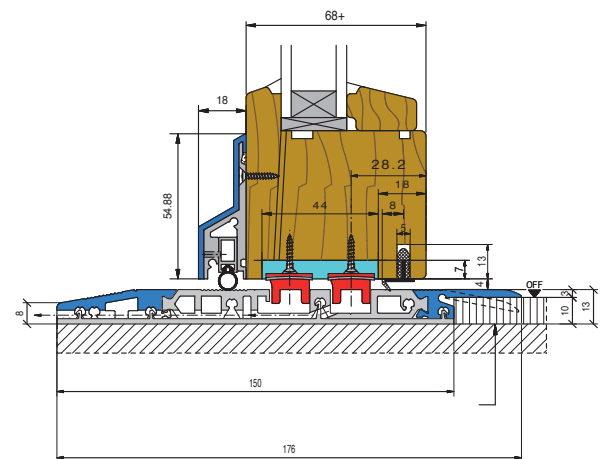
- The world's only zero threshold with passive house certification
- The only zero threshold that can demonstrate all technical performance characteristics
- Can be used ergonomically, intuitively and safely by everyone – no one is excluded
- Suitable for entrance doors and for patio and balcony doors
- Compatible with all profiles around the world
- Sealing classifications for single-leaf and for double-leaf exterior doors, opening inwards and outwards
- Can be used even in the highest load areas due to highest driving rain tightness
- Water-sensitive floors can be directly adjacent to the zero threshold – guaranteed without risk of condensation and mildew
- Long-term tests prove durability and system safety even after more than 20 years
- No mechanics in the function, therefore almost maintenance-free
- 20-year guarantee on the magnetic traction of the seals
- Structural sealing pre-assembled at the factory on request
- Design freedom and savings potential such as additional gutters and canopies
- The magnetic zero threshold has convinced with its technical top performance and its shapely ergonomic simplicity at the German Design Award. As a threshold-free innovation for exterior doors, it was awarded „Gold“ in the Universal Design category. The „Gold“ award stands for excellence in international design and is only given to the best of the best.



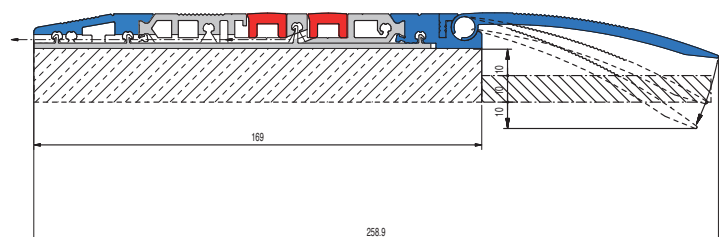
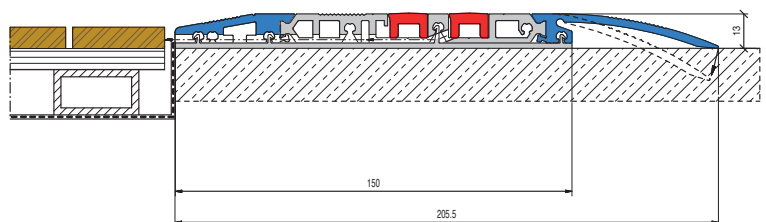
Door renovation profile for energy efficient renovation.

UPGRADE FOR EXISTING PROPERTY - AND FOR LIVING COMFORT

ALUMAT makes it easy to eliminate hazardous door thresholds in existing buildings. The special renovation profile can be placed directly on the screed and either takes up the height of the interior floor or compensates for existing height differences with various joint profiles without edges.



With a height of **only 13 mm**, ALUMAT has succeeded in fully integrating drainage in this flat floor profile and, despite this flat intrinsic height, in achieving the highest class 9A for driving rain tightness according to DIN EN 12208. Thanks to its flexible adaptability, **an absolutely edge- and trip-free transition** between inside and outside can be created even in existing buildings, when the floor height outside is adjusted. The door renovation profile can be retrofitted to existing exterior doors under certain conditions (e.g. listed buildings) or combined with all possible profiles in conjunction with new exterior doors.





ENERGY-EFFICIENT RENOVATION

In addition, this renovation profile supports energy-efficient renovation measures with new optimized thermal insulation values. For example, window doors with plastic profiles can achieve an hc (Heat transfer coefficient) value (installed) of $0.84 \text{ W}/(\text{m}^2\text{K})$ with an U_g value of $0.60 \text{ W}/(\text{m}^2\text{K})$. This is much less than the permitted maximum hc value of $1.3 \text{ W}/(\text{m}^2\text{K})$ for window doors under the current Building Energy Act.



In Geislingen an der Steige, the responsible historic preservation authority agreed after only two weeks that the existing 3 cm high door threshold could be removed with the ALUMAT solution. Since then, all citizens can comfortably access their listed town hall.





As for new building, same for renovation: The magnetic zero threshold provides secure transition between inside and outside for all generations.

ADVANTAGES FOR EXISTING PROPERTY AT A GLANCE:

- The world's only energy-efficient door renovation profile with magnetic seals that can simply be placed directly on the screed
- Best heat transfer values can be achieved for energy-efficient renovations
- Makes any door stop seals in the existing building redundant!
- Low and high door thresholds can be removed with this door renovation profile, creating a fall-preventive environment
- Providing tightness against driving rain as well as highest sound insulation and optimal thermal insulation
- Highest flexibility and adaptability to different installation conditions due to smart additional profiles
- Ergonomic, intergenerational, intuitive and safe transitions on exterior doors possible even in old and listed buildings
- Suitable for entrance doors and for patio and balcony doors, single and double-leaf.
- Compatible with all exterior door profiles around the world
- Water sensitive floors can be directly adjacent to the door renovation profile
- Long-term tests prove durability and system safety already since 2001
- No mechanics in the function, therefore almost maintenance-free
- 20-year warranty on the magnetic pull of the seals



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